



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,308	12/04/2003	Tomoji Tarutani	5095-4077	2185

27123 7590 09/20/2006

MORGAN & FINNEGAN, L.L.P.
3 WORLD FINANCIAL CENTER
NEW YORK, NY 10281-2101

EXAMINER

DWIVEDI, VIKANSHA S

ART UNIT	PAPER NUMBER
----------	--------------

3746

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,308

Applicant(s)

TARUTANI ET AL.

Examiner

Vikansha S. Dwivedi

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/04/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/03 and 7/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Priority

The priority claimed for the application has been acknowledged.

Information Disclosure Statement

Applicant Information Disclosure Statement submitted on 12/24/2003 and 7/3/2006 is acknowledged. Since the submission complies with 37CFR 1.97 and 1.98 the references listed therein have been considered. An initialed and dated copy of Applicant's IDS forms is attached to the instant Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1, 2, 3, 4, and 9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant's uses the term "movement restricting parts" it is not clear what he claims as the movement restricting part⁹⁵ he has not shown it in the Figures or explained in the Specification what parts or part of the assembly as shown in Figure 1 of the invention are regarded as "movement restricting parts". For the purpose of examination^{the} Examiner is giving the term its broadest reasonable interpretation by treating it as a^{an} assembly of those parts that restrict the motion. Applicant is advised to make it clear in the specification by including numerals in the drawing for same.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Publication (US 2001/0021348 A1 now U.S. Patent 6,547,533).

A method of adjusting a rotary machine including a housing (front housing member 11 and a rear housing member 13), a rotary body (crank chamber 15, drive shaft (16) is rotatably supported by the housing in the crank chamber shown in Figure 4 and 6, the drive shaft is made of an iron type metallic material) movement restricting means (Figure 1) and an adjustable member (51), the rotary body being rotatably supported in the housing and having a rotary axis for rotation (L), the movement restricting means restricting movable amount of the rotary body in a direction of the rotary axis to a predetermined amount when the movement restricting means contacts with the rotary body (Shown in Figure 2, when forward movement of the drive shaft 16 is restriction by the first restriction surface 11a of the front housing member 11 via the thrust bearing 20, three clearances X1 to X3 are formed as follows. That is, the clearance X1 is formed between the contact surface 16a of the drive shaft 16 and the second restriction surface 51a. The clearance X2 is formed between the end surface of the piston 35, which is located at the top dead center position, and the first subplate 14b of the valve plate 14. The clearance X3 is formed between the pulley 24 and the armature 28 of the

Art Unit: 3746

electromagnetic clutch 23), the movement restricting means also restricting one-side sliding movement of the rotary body in the direction of the rotary axis when a movement restricting part and a contacting part contact with each other (As shown in FIG. 3(b), when the small diameter portion 61b is inserted into the through hole 51c of the restriction member 51, the large diameter portion 61a of the jig 61 contacts the rear end surface of the restriction member 51. Also, the small diameter portion 61b engages the contact surface 16a of the drive shaft 16 and pushes the drive shaft 16 forward. Thus, as shown in FIG. 2, the jig 61 presses and advances the restriction member 51 in the accommodation hole 12a to a position where the forward movement of the drive shaft 16 is restricted by the first restriction surface 11a via the thrust bearing 20), one of the movement restricting part and the contacting part being provided by the adjustable member that is fixedly press-fitted to one of the housing and the rotary body in the direction of the rotary axis (The restriction member 51 is press-fitted into the accommodation hole 12a of the cylinder block 12 using a jig 61), comprising the steps of: press-fitting the adjustable member to one of the housing and the rotary body where the adjustable member is arranged (As shown in FIG. 1 and FIG. 2, a restriction member 51 has a cylindrical shape and is coaxial with the axis L. The restriction member 51 is press fixed in the accommodation hole 12a of the cylinder block 12), to a reference position at which movable amount of the rotary body is zero; and adjusting the movable amount of the rotary body in the direction of the rotary axis to the predetermined amount by varying a position of the adjustable member that is press-fitted to the one or the housing and the rotary body from the reference position by the

Art Unit: 3746

predetermined amount in a direction in which the movement restricting part and the contacting part contacting with each other are separated from each other; wherein the adjustable member is the movement restricting part that is fixedly press-fitted to the housing, the contacting part (contact surface 16a) being formed on the rotary body; wherein the adjustable member (51) is the contacting part that is fixedly press-fitted to the rotary body, the movement restricting part being formed on the housing; wherein the adjusting step comprises: adjusting the movable amount of the rotary body to the predetermined amount by pressing the rotary body against the movement restricting part by the predetermined amount; wherein a part of the rotary body is exposed outside from the housing in such a manner that the rotary machine receives power (Shown in Figure 1 rotary machine receives power from engine Eg for the drive shaft 16) from an external drive source (The power source Eg is located outside of the housing), the adjusting step comprising: adjusting the movable amount of the rotary body to the predetermined amount by pressing an exposed portion of the rotary body (shaft 16 is exposed outside from the compressor housing as shown in Figure 1); wherein the housing includes at least a first housing component (11) and a second housing component (12) which are fixedly joined to each other (Shown in Figure 1), the rotary body being rotatably supported in the first housing component, the second housing component being adjoined to the first housing component, the press-fitting step comprising: press-fitting the adjustable member to one of the second housing component and the rotary body at the reference position by pressing the adjustable member against the other of the second housing component and the rotary body when

Art Unit: 3746

the first housing component and the second housing component are fixedly joined to each other; wherein the housing includes at least a first housing component and a second housing component which are fixedly joined to each other, the rotary body being rotatably supported in the first housing component, the second housing component being adjoined to the first housing component, the press-fitting step comprising: press-fitting the adjustable member to the first housing component at the reference position by pressing the adjustable member against the rotary body before the first housing component and the second housing component are fixedly joined to each other; wherein the housing defining a cylinder bore and a suction pressure region, the piston (Piston 35) being accommodated in the cylinder bore (cylinder bore 33) and being reciprocated therein in accordance with the rotation of the rotary shaft that serves as the rotary body, thereby a compression mechanism being accommodated in the housing for compressing refrigerant gas, the rotary shaft having an end to which a rotary valve is press-fitted, the rotary valve (14) opening and closing a passage formed between the cylinder bore (33) and the suction (suction chamber 37) pressure region in accordance with synchronous rotation of the rotary shaft, the contacting part being formed on the rotary valve (Shown in Figure 1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikansha S. Dwivedi whose telephone number is 571-272-7834. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vikansha

VSD

Anthony D. Stashick

ANTHONY D. STASHICK
PRIMARY EXAMINER